

ALLFETT®

CENTRAL LUBRICATION SYSTEMS & EQUIPMENT



ALL-6 Replaceable Cartridge Type
ELECTRICAL GREASE PUMPS

INSTRUCTION AND USER MANUAL

VERSION 2.00

INTRODUCTION

All industrial machinery, equipments and vehicles are working under abrasive operating conditions. The wear between frictional parts become the most highest level at these conditions. Machinery expose bad weather, dust, dirt, rain, snow and heavy weight in most cases. Consequently unwanted breakdowns occur and by that way productivity loss is inevitable.

Using automatic lubrication system only increase your profitability. ALLFETT completely take over the work load spend on lubrication with a system which is bringing together a pump, control unit, distributors, tubes and couplings. Lubrication work is done by ALLFETT centralized lubrication systems in efficient time of machinery or vehicle which is while operating.

Lubrication is important for all frictional parts but using correct lubrication system and method only protect parts from wearing for a long time. Feeding lubrication points with correct dosage of lubricant at certain intervals while machinery is operating, provides lubricant film in place longer between parts. By ALLFETT lubrication systems life time of parts on your machinery and vehicles will be increased.

ABOUT MANUFACTURER

With over 25 years experience of manufacturing Centralized Lubrication Systems ALLFETT is able to provide a wide professional approach to select the correct Centralized Lubrication System for industry and heavy machinery.

A highly accurate manufacturing process is involved in producing Centralized Lubrication Systems in order that systems meet the very tight quality procedures and state of the art processes are employed. ALLFETT is among the few companies whose products meet the exact technical and quality standards for a correct central lubrication. We present our high quality and advanced product design concept to our worldwide costumers through our strong brand.

ALLFETT creates new opportunities and innovative solutions. As a result of the satisfaction of our customers with our good quality lubrication systems we are continuing in growing in the local and international market and became one of the successful companies in the field.

WARNINGS

Symbols and words shown below are meant to warn a particular risk to persons, material assets, or the environment. Please carefully read this manual before installing. Failure to follow the instructions and safety precautions in this manual could result in serious injury or property damage.

**Caution****Notice****Electricity****Prohibition**

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PRODUCT DESCRIPTION

ALL- 6 series are piston type electrical grease pumps designed to be used with small machinery and equipments. Replaceable grease cartridge is used as a reservoir. 350 gram and 675 gram capacity cartridges eliminates any kind of problem related on filling and also makes this process easier.

Electrical connections of the pump can easily be done by electrical socket placed onto motor cover. DC type motor voltages can be selected from 12 or 24 Volts. This pump can also be used with ALLFETT electronic control cards if necessary.

In case the pump is installed so that operator cannot see the level of grease, the ALLFETT low level sensor can be used to follow the level of grease in cartridges.

GENERAL SPECIFICATIONS

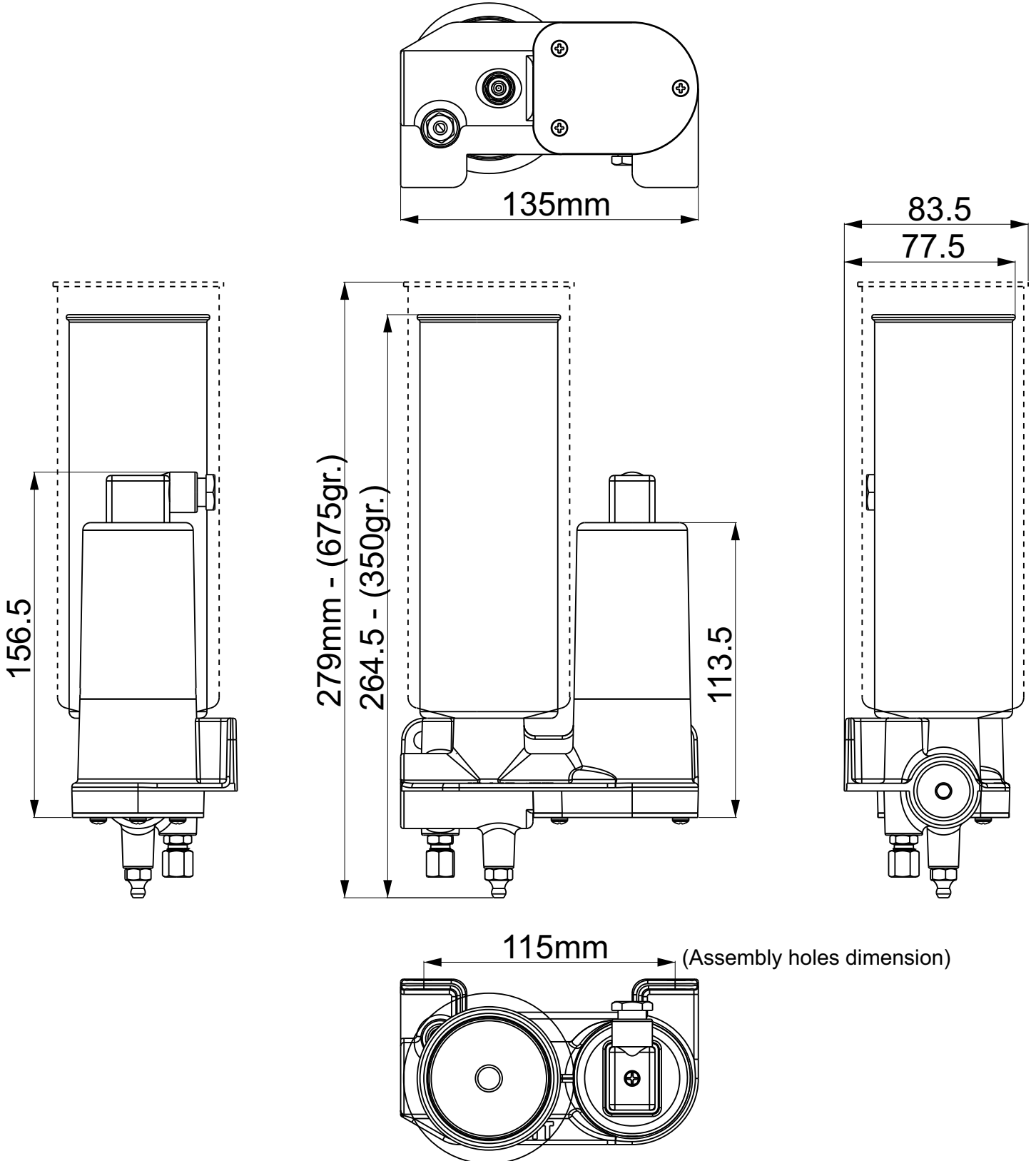
Motor type	: 12 - 24 V DC
Working pressure	: 150 bar.
Max. pressure	: 220 bar.
Motor protection class	: IP 54
Displacement	: 4,5 cm ³ / minute
Grease type	: NLGI 00 (-30°C) - (-10°C) NLGI 0 (-10°C) - (0°C) NLGI 1 (0°C) - (10°C) NLGI 2 (10°C) - (30°C)
Working temperature	: -25°C +80°C
Cartridge capacities	: 350 gram - 675 gram
Outlet coupling	: M10x1 - Ø6mm



ALL-6 pums are manufactured only lubrication purpose. It is not convenient to run these pumps more than 2 hours continuously.

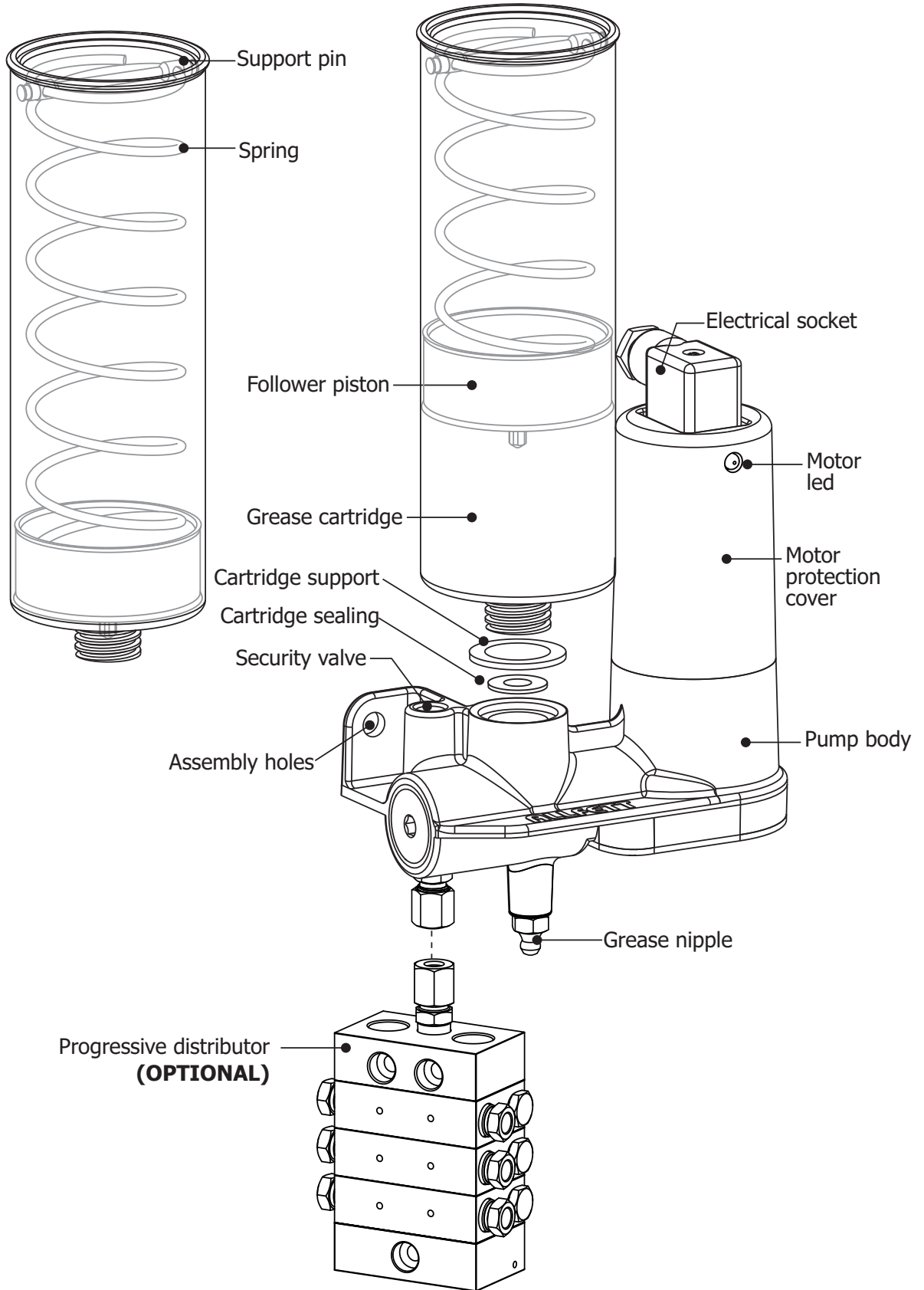
GENERAL DIMENSIONS

Aşağıda teknik resimler ALL - 6 elektrikli gres pompasını temsil etmektedir. Teknik resim ölçü birimi milimetredir.



PRODUCT COMPONENTS

Aşağıda gösterilmekte olan şema ALL- 6 pompayı temsil etmektedir. Standart ve opsiyonel olarak sunulan ekipmanlar şema üzerinde belirtilmiştir.



FUNCTIONAL DESCRIPTION

Appropriate electrical energy (12 or 24 V DC) is connected to system ;

Electrical motor start to operate.

Spring returned pump element piston vacuums the lubricant inside reservoir. Rotational movement of the eccentric pushes pump element piston so that the lubricant vacoomed before is sended to pump element outlet with high pressure. Working pressure can be adjusted on security valve.

The lubricant coming out from pump elements ;

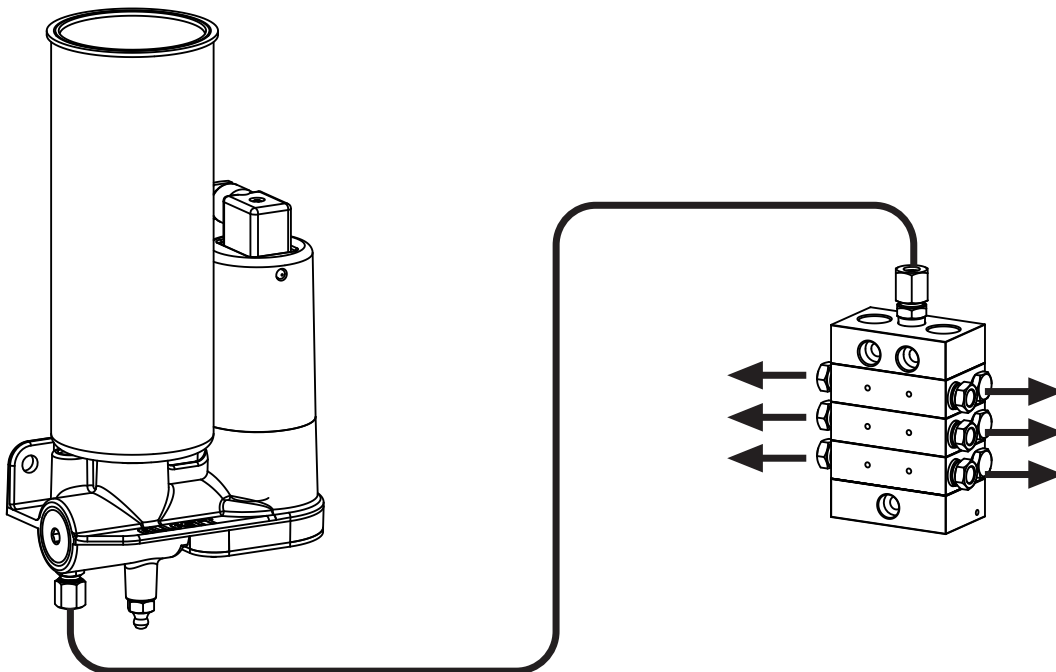
Displacement volume of the pump element(s) can be connected to single lubrication point. However displacement volume can also be divided by progressive distributor to feed multiple lubrication points.

Optional system control units ;

Lubrication system and its components can be controlled and monitored with integrated electronic control cards. Digital sensores and also pressure switches where placed on system components send information to control card.



Distributors and control cards are offered optionally. While ordering a pump, other components have to be ordered separately according to their properties.



Any maintenance on ALL-1 pumps under electrical voltage could lead to personal injury. Disconnect all electrical power before any maintenance .



Any maintenance on ALL-1 pumps under high pressure could lead to personal injury. Discharge the system pressure before any maintenance .



Unauthorzied modifications to the units and the use of unauthorzied spare parts and aids prohobited also disqualify the warranty.

LUBRICANT INFORMATION

Lubricant specifications can be used with ALL-1 pumps are described below. Before filling reservoir please read carefully these informations.



Lubricant will be used in the system must certainly be clean and any foreign materials must not enter while filling.



ALL-1 pumps are designed to use with in centralized lubrication systems only. It is not suitable to use ALL-1 pump for lubricant tranfering or circulation purpose.



To remind that lubricants has content which may hazardous to environment. It is important that the county specific regulations and laws on the use and disposal of lubricants must be observed.

Lubricant type - GREASE

NLGI classes can be used with ALL-1 pumps are described below. Because of the flow characteristics of grease the NLGI class range should be changed at different weather conditions and also temperature differencies.

for **NLGI 00** grease recomended working temperature is between -30°C and -10°C

for **NLGI 0** grease recomended working temperature is between -10°C and 0°C

for **NLGI 1** grease recomended working temperature is between 0°C and 10°C

for **NLGI 2** grease recomended working temperature is between 10°C and 30°C



Keep in mind that the substances of any lubricant are harmful to environment. Their transport and storage require that special safety measures be taken.



Only LITHIUM based and EP additive liquid greases must be used with in system.

It is important that the grease will be used must resistant to high pressure. Make sure the liquid grease you are using is EP additive.



**Do not use rubber based grease in system.
Do not use grease types with graphite in system.**

LUBRICATION INFORMATION

Grease penetration properties is variable at different environment temperatures. The environmental temperature around lubrication lines must be considered for choosing the correct grease. Grease properties should be appropriate that environmental temperatures. Changing NLGI classes at different temperatures is important to correct lubrication. If necessary, high temperature resistant lubricants should be used in some cases.



It should not be forgotten that the grease penetration properties is variable at different environment temperatures.

PRESSURE LOSE CHART

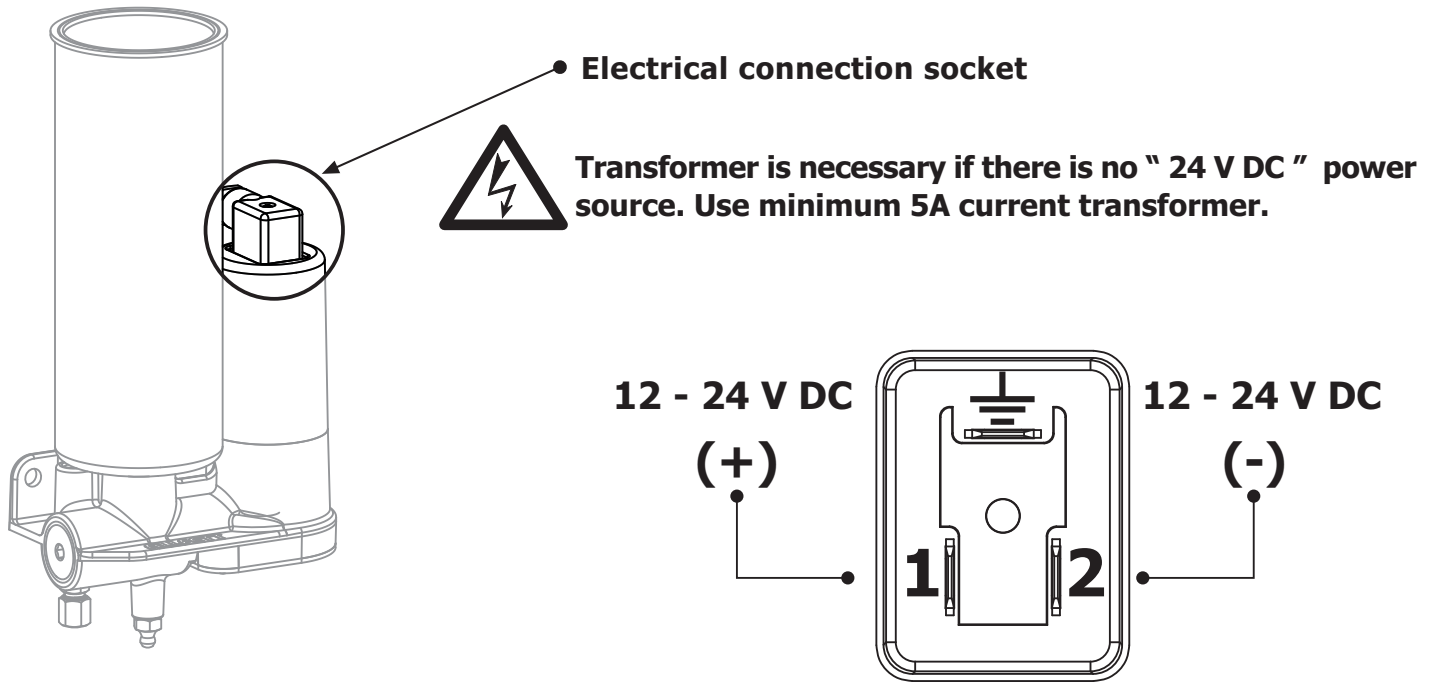
Loosing pressure in lubrication lines depends on differend variables. The most important variables are pump displacement, environmental temperatures, tube diameter and NLGI class. Each variable must be considered for correct lubrication.

The chart below represents the approximate pressure loose in tube which 1 meter long. Results are varies according to pump element displacement volume created by single or multiple pump elements. Result values are defined in bar.

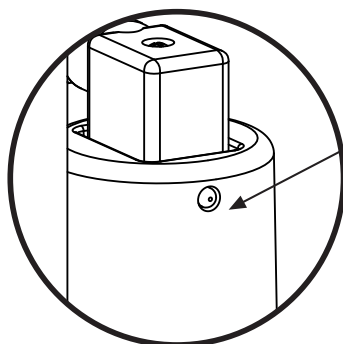
Tube diameter	NLGI class	Pump element displacement 5 cm ³ / minute				
		-10°C	0°C	10°C	20°C	30°C
Ø6 x 1 (Ø4mm)	NLGI 0	6,6	3,48	1,92	1,08	0,66
	NLGI 1	11	5,8	3,2	1,8	1,1
	NLGI 2	17,6	9,28	5,12	2,88	1,76
Ø8 x 1 (Ø6mm)	NLGI 0	3,48	1,8	0,96	0,54	0,33
	NLGI 1	5,8	3	1,6	0,9	0,55
	NLGI 2	9,28	4,8	2,56	1,44	0,88
Ø10 x 1 (Ø8mm)	NLGI 0	1,8	0,9	0,48	0,264	0,156
	NLGI 1	3	1,5	0,8	0,44	0,26
	NLGI 2	4,8	2,4	1,28	0,704	0,416
Ø12 x 1 (Ø10mm)	NLGI 0	1,2	0,54	0,3	0,156	0,09
	NLGI 1	2	0,9	0,5	0,26	0,16
	NLGI 2	3,2	1,44	0,8	0,42	0,26
R 1/2 (Ø15,75mm)	NLGI 0	0,54	0,24	0,12	-	-
	NLGI 1	0,9	0,4	0,2	-	-
	NLGI 2	1,44	0,64	0,32	-	-
R 3/4 (Ø21,25mm)	NLGI 0					
	NLGI 1					
	NLGI 2					
R 1 (Ø27mm)	NLGI 0					
	NLGI 1					
	NLGI 2					

ELECTRICAL CONNECTION SCHEMA

Pumps have an electric driven motor. Electrical lines must be connected properly as described in schema below. Electrical socket is placed upon motor cover.



Electrical connections of ALL-6 pump must be done properly. Positive (+) and Negative (-) poles must be connected as described below. Warning led must be light in green color.



WARNING LED ;



GREEN Positive (+) and Negative (-) poles connected properly.



RED Positive (+) and Negative (-) poles connected wrong.

RULES TO COMPLY WHILE USING AND WARRANTY CONDITIONS

- 1.** Damages occur while additional transports after delivering the goods from ALLFETT to the customer **DISQUALIFIES THE WARRANTY.**
- 2.** Pumps are produced to lubrication purpose only and are not convenient to work more than 2 hours continuously. Working under maximum pressure more than 2 hours will harm the system. Damages occur from this reason **DISQUALIFIES THE WARRANTY.**
- 3.** Washing of the pump with pressured water causes damage. Any damage occur from this reason **DISQUALIFIES THE WARRANTY.**
- 4.** Pump reservoir is made of semi-transparent material to see grease level. Painting any part of the pump is not recommended. Any painted parts **DISQUALIFY THE WARRANTY.**
- 5.** Pumps have an electric driven motor. Electrical lines must be connected properly as described in PAGE 8 and applied only by qualified and instructed personel.
- 6.** All electrical connections and lines must be checked regularly for damage and to ensure that they are firmly in place.
- 7.** Damages coming from voltage fluctuation, wrong electricity installation, connecting wrong voltage to product **DISQUALIFIES THE WARRANTY.**
- 8.** Keeping an uncovered cable(s) during system assembly may cause fatal damages where high voltage is transformed to low voltage. Lines must be connected properly to prevent personal injury and damage to property.
- 9.** Transformer is necessary if there is no " 24 V DC " electrical source. Use minimum 5A current transformer.
- 10.** Only proper NLGI class lubricants must be used with in system. NLGI class must be changed according to weather conditions. Use NLGI 0 for cold weather, increase the NLGI class up to 3 towards hot weathers.
- 11.** Only LITHIUM based and EP additive lubricants must be used with in system.
- 12.** Rubber based lubricant types must not be used in the system. Damages or faults occur from this reason **DISQUALIFIES THE WARRANTY.**
- 13.** Lubricant will be used in the system must certainly be clean and any foreign materials must not enter while changing cartridge.
- 14.** Plastic follower piston of cartridge must not be removed due to filling purpose. Grease cartridge must not be filled by removing follower piston.
- 15.** Any foreign materials, dirt or small particules while changing grease cartridge lead to system units failing and possibly property damage to equipments. Damages or faults occur from this reason **DISQUALIFIES THE WARRANTY.**

RULES TO COMPLY WHILE USING AND WARRANTY CONDITIONS

- 16.** If the pump works without lubricant, pump elements will send air to the points instead of grease. Because of that any points connected to pump will not get any lubricant. Damages on pump and on the system coming from that reason **DISQUALIFIES THE WARRANTY**.
- 17.** Disassembling or loosing any part while pump working is prohibited. Any damage coming from this reason **DISQUALIFIES THE WARRANTY**. Also any personal injury occur from this reason **ALLFETT** does not accept responsibility.
- 18.** Another goal of Centralized Lubrication Systems is to protect environment. So it is adviced to fill grease to the systems by mobile or hand pumps.
- 19.** Unauthorized modifications to the units and the use of unauthorized spare parts and aids prohobited and **DISQUALIFIES THE WARRANTY**. Only maintenance may apply descibed in PAGE 14 - 15. **ALLFETT** Technical Service must be informed to any other possible troubles and necessary procedures must be performed.
- 20.** **ALLFETT Mekanik ve Elektronik Sistemler SAN. TIC. LTD. STI** and **ALLFETT Pazarlama ve Dis Ticaret LTD. STI.** does not accept responsibility for damages described in items above on equipments which **ALLFETT** systems are installed.

PUMP MAINTENANCE

1. IF PUMP NOT STARTS

- a. Electrical connections of the pump may be loosen or broken. Check the electrical cables and connections of the system according to schemas on page 9 and page 10.
- b. Connected electricity to pump may different then " DC " voltage. Connect the electricity 24 V DC which is marked on pump sticker.
- c. Connected electricity may be converted to "DC" voltage from "AC" voltage by a transformer.
Transformer must be minimum 5A current.

- d. If electronic control system is connected the pump ;

Electronic control system may be in waiting period. Wait until working time starts.
If necessary operate an additional lubrication cycle.

2. IF PUMP NOT SENDING GREASE

- a. Grease cartridge may empty ;

Change the grease cartridge according to description on page 12. CARTRIDGE CHANGING INSTRUCTIONS.

- b. Positive (+) and negative (-) poles may connected wrong to electrical socket ;

Connect correct cables to correct positions explained in page 8.

- c. Security valve discharging grease so, lubrication points not feeded ;

Because of the blockage on lubrication point, pump can not send grease to point through distributor. Security relief pressure limit is exceeded. Remove the couplings from lubrication points then remove the blockage from point.



Unauthorized modifications to the units and the use of unauthorized spare parts and aids prohibited and disqualify the warranty.

TECHNICAL SERVICE

ALLFETT MEKANİK VE ELEKTRONİK SİSTEMLER SAN. VE TİC. LTD. ŞTİ.
Yeni Eyüp Bulvarı, Topçular Caddesi, Set Üstü, No:1 Demirkapı-Rami / İstanbul
Telefon: 0 212 501 32 01 (PBX) www.allfett.net
Fax : 0 212 501 33 37 info@allfett.net Gresörlük

CARTRIDGE CHANGING INSTRUCTIONS

ALL-6 electrical grease pump use grease cartridges as reservoir to easy filling purpose. Please follow the instructions below to operate pump without air inside pumping system.



To operate pump properly, grease cartridges must be replaced before grease level end completely. If pump continue to operate without grese, pump system will take air inside.

FOLLOWER PISTON PUSHER

There are spring and support pin (Figure -1 and Figure -3) inside grease cartridge to sending out grease easily. These components are sended in dismantle parts and must be assembled before use.



Filled grease cartridges must be kept without spring inside. Spring must be installed after cartridge is installed.

Figure -1



Figure -2



Cartridge replacing steps

1. Remove empty cardridge from pump.
2. New cartridge must be placed on pump without follower piston pusher. Place the cartridge by turning 1,5 turn. (Cartridge must not be tightened completely)
3. Place the follower piston pusher inside cartridge as shown in figure -2.
4. Hold support pin firmly by hand then place support pin's one side to its place on cartridge as shown on figure -4.
5. After placing first side of support pin, other side must be placed. Both sides must be firmly in place on cartridge. (Figure -5)
6. After placing suport pin, air went out from gap between pump body and cartridge. When all air out and some grease is seen cartridge must be tightened to pump body. Pump is now ready to operate.

Figure -3

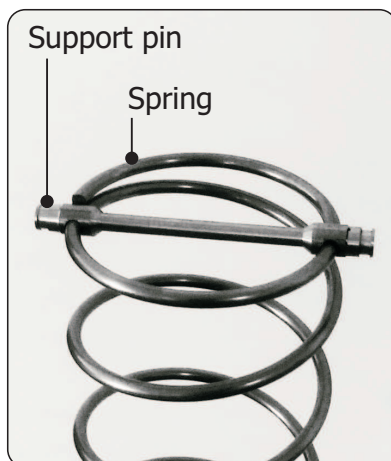


Figure -4



Figure -5



PRODUCT ORDER INFORMATION

Product name - Description

ALL-6 Pump - 12 V DC
ALL-6 Pump - 24 V DC

Ordering numbers

10 12 06 A5
10 24 06 A5

SALES

ALLFETT PAZARLAMA VE DIŐ TİCARET LTD. ŐTİ.

Yeni Eyüp Bulvarı, Topçular Caddesi, Set Üstü, No:1 Demirkapı-Rami / İstanbul
Telefon: 0 212 501 32 01 (PBX) www.allfett.net
Fax : 0 212 501 33 37 info@allfett.net

WARRANTY

Utilisation of this warranty certificate has been permitted by The Republic of Turkey, The Ministry of Industrial and Commerce, The general Administration of Protection of Consumer Right and Competition, in accordance with the law numbered 4077 .

PRODUCER COMPANY

NAME : ALLFETT Mekanik ve Elektronik Sistemler
San. ve Tic. Ltd. Şti.
CENTRAL ADDRESS : Yeni Eyup Bulvari, Topcular Cad. Set Ustu, No:1 Demirkapı-
Rami / İstanbul
TELEPHONE : 0212 501 32 01 (PBX)
FAX : 0212 501 33 37

AUTHORISED PERSON

SIGNATURE - STAMP : :

PRODUCT

TYPE : Elektrikli gres pompası
BRAND : ALLFETT
MODEL : ALL-6
SERIAL NUMBER :
DELIVERY DATE / PLACE :
WARRANTY : 2 YIL
REPAIR TIME : 30 days

SALER COMPANY

NAME :
CENTRAL ADDRESS :
TELEPHONE :
FAX :
BILL DATE / NUMBER :

WARRANTY CONDITIONS

1. The warranty period is two years from the date of delivery.
2. The product including all its components is under the warranty of our company.
3. In case of defects within the warranty period the period spent in repairing is added to the warranty period. The repairing period is maximum 30 days. This period starts from the date of delivery of the product to the services centers or to the seller, the agency the representative, the importer or the manufacturer of the product respectively, in case there are service centers.
4. In case the product has material, workmanship or manufacturing defects, the product will be repaired free of charge and expenses of any sort including labor, the value of the parts replaced or any our charges.
5. The product will be replaced free of charge;
 - If the product permanently disfunctions due to repeating the same defect more than four times within the warranty period
 - If the maximum period for repairing is exceeded.
 - If it is determined that the defect cannot be repaired by report written by the service, or in the absence of service centers, by the seller, agency, representative, importer or manufacturer of the product respectively.
6. The present warranty does not cover damages resulting from importer handling by deviating from the instructions in the manual.
7. General administration of protection of consumer rights and competition in the ministry of industry and commerce may be applied for problems concerning the warranty certificate.

DANGEROUS OR HARMFUL CONDITIONS TO ENVIRONMENTAL AND HUMAN HEALTH DURING USE

All ALLFETT systems are producing according to relevant provisions of security regulations. There is no risk for environmental and human health during use.

TRANSPORT AND STORAGE

There are no restrictions on transportation by land, air and sea. In general, products should be stored in a dry and dust-free environment. The storage temperatures are between -10°C and +40°C.

All products are packed with paper based support material to reduce damage. Upon receiving the package please check the items for possible damage.



ALLFETT MEKANİK VE ELEKTRONİK SİSTEMLER SAN. VE TİC. LTD. ŞTİ.

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